November 26, 2013

Sent Via Electronic Mail

Ms. Carmen Anderson
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IDEM Remediation Services Branch
100 N Senate Ave
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Re: Comments on Mundell September 2013 Remediation Work Plan
Michigan Plaza Site (VRP# 6061202)
3801-3823 West Michigan Street
Indianapolis, Indiana

Dear Carmen:

ENVIRON International Corporation (ENVIRON) has completed a review of the September 18, 2013 Remediation Work Plan (RWP) prepared by Mundell & Associates, Inc. (Mundell) for the Michigan Plaza Property (Voluntary Remediation Program (VRP) #6061202) located at 3801-3823 West Michigan Street in Indianapolis, Indiana (Plaza Site). In a June 22, 2011 "Request for Revised Remediation Work Plan Approval Review and Technical Response to General Notice of Potential Liability Review" letter, Indiana Department of Environmental Management (IDEM) expressed concerns regarding the characterization of the Plaza Site and requested additional delineation activities. IDEM also requested the installation of additional deep monitoring wells in the source areas. Our review of the RWP has identified a number of data gaps regarding IDEM's requests, significant internal inconsistencies with the stated utility and accuracy of the data presented, and significant discrepancies with Mundell's interpretations of subsurface conditions and related chemical fate & transport conclusions, including those related to the Genuine Parts, VRP #6991004 (Genuine Parts Site). Based on identified data gaps, it is apparent that the RWP does not adequately address the IDEM concerns and should not be approved at this time. Our concerns with the Mundell RWP are discussed below.

1. Site Geology & Hydrogeology

In the RWP Mundell makes unsubstantiated interpretations of the subsurface geology, groundwater flow, and contaminant migration. In Section 2.1.1.2 Mundell states "*Based on 2-D resistivity data calibrated to soil boring data, numerous bowl shaped "pods" and "flow pathways" suggesting possible channels or shallow valleys in their morphology, along with the presence of the coarse-grained (sands, gravels, cobbles) have been identified in the subsurface (see Figure 9)*" . Figure 9 provides an interpretation of till and sand & gravel unit occurrence (inferred geologic map) at an elevation of 670 feet above mean sea level (ft amsl) based solely on resistivity data. As discussed in our June 7, 2012 comment letter (ENVIRON, 2012), the resistivity data are not reliable to accurately predict contacts between the till and sand & gravel. Geologic data must be collected to verify the interpretations of the resistivity data. Very limited geologic data are present west of Holt Road; therefore, a considerable portion of Figure 9 is based solely on resistivity data. Geologic data must be collected to verify the unconfirmed till highs and lows of Figure 9. On Figure 9, Mundell illustrates a southwestward oriented "flow pathway" around the western flank of a hypothesized topographic

high in the till surface that then cuts through the till high to the east southwest of the Plaza Site along Mundell Line 2. Neither the hypothesized till surface topography or groundwater flow direction have been demonstrated to exist. In fact, the interpreted groundwater flow direction contradicts numerous potentiometric surface maps prepared by Mundell and others including Figure 15 of the RWP.

Mundell also states in Section 2.1.1.2 that *"Based on the interpretation of the results of an east-west oriented two-dimensional resistivity survey completed for the Phase II ESA dated May 5, 2005 for the Apartments near the Little Eagle Creek (see additional discussion in Section 2.2.6), there are likely thick, more uniform hydraulically-transmissive sand and gravel deposits east of the [Plaza] Site, deposits that suggest a more proximal position relative to an ice margin braided stream. West of the Site, the well-graded sands appear to have been deposited in a more complex channelized, interwoven and tortuous manner. The depositional environment is inferred to be more distal to the higher energy environment further west, and suggests groundwater flow pathways to be more restricted and less transmissive than those to the east."*

Mundell's interpretations of the depositional environments in the Plaza Site area are highly speculative and flawed. First of all, the resistivity survey was conducted in a limited area due north of the Plaza Site. The survey line is illustrated as 2004 Line on Figure 9. Based on the location and limited scope of the resistivity survey, it is not clear how broad interpretations of area-wide geological depositional environments can be made east and west of the Plaza Site. Further, interpretation of geologic depositional environmental based primarily on a geophysical survey is highly speculative. In addition, ENVIRON previously identified a number of concerns with Mundell's geophysical surveys as referenced above.

In Section 2.1.1.2 of the RWP, Mundell describes a "…more laterally extensive glacial till unit…" with a surface located at an elevation of about 675 to 685 ft amsl that is "…continuously present below the southern half of the Apartment complex, and extends south below the Michigan Plaza property and Floral Park cemetery." Mundell goes on to state that "This unit has been shown to be aerially extensive and of sufficient thickness to act as a vertical barrier to the groundwater impacts caused by the historical chemical releases at Michigan Plaza." A map intended to illustrate the thickness of the till unit (up to 30 feet thick beneath the Plaza Site) is provided as Figure 8. Thickness values used to generate the thickness (isopach) map are not provided on the figure. A review of available boring logs for the southern half of the Apartment complex, Michigan Plaza property, and Floral Park cemetery did not identify any till with a surface elevation of about 675-685 ft amsl and a confirmed thickness of greater than 3.5 feet (MMW-P-9D). Although the MMW-P-09D boring log showed a thickness of 3.5 feet for the till, Figure 8 erroneously suggests that the till is between 25 to 30 feet thick in this area. As the boring logs generally only showed a few feet of till at their bottom (when encountered), it is apparent that the till isopach map was generated largely based on geophysical data. Mundell resistivity survey lines are provided on Figure 8. Without geologic confirmation, the geophysically based Figure 8 is largely speculative. In addition, ENVIRON has identified a number of concerns with the Mundell geophysical surveys as referenced above. Mundell's claim that there is an aerially extensive till at the Plaza Site of sufficient thickness to serve as a vertical barrier to related contaminant migration is unsubstantiated.

As discussed above, Mundell has made unconfirmed representations of the subsurface geology and groundwater flow in the RWP. These unconfirmed representations have led to unsubstantiated claims regarding contaminant occurrence and migration as further discussed below.

2. Source Delineation

Former dry cleaning operations at the Plaza Site have caused significant perchloroethene (PCE) and related chlorinated solvent impacts on the Michigan Plaza and Maple Creek Village Apartment properties to the north across Michigan Street. These impacts are documented in reports prepared by Mundell on behalf of former property owner AIMCO. These reports include, but are not limited to, a Further Site Characterization Report dated May 10, 2006 (MUNDELL 2006), Further Site Investigation Addendum I Report dated April 1, 2007 (MUNDELL, 2007), Remediation Work Plan dated February 28, 2008 (MUNDELL, 2008). To date, at least three source areas related to past dry cleaning operations at the Plaza Site have been identified by Mundell investigations, including leaking sewer lines. Approximate general locations of the identified source areas are illustrated on Figure 2a of the RWP. Although Mundell has completed a subsurface investigation as recently as March 2013, these source areas have not been delineated. Available data collected to date during the source investigations and remediation monitoring confirm that dry cleaner related impacts extend throughout the entire thickness of the saturated sand/sand & gravel unit (shallow and deep zones) and that the Plaza Site is the primary source of cis 1,2 dichloroethene (c 1,2 DCE) and vinyl chloride (VC), as well as PCE and trichloroethene (TCE), to groundwater within and downgradient of the identified Plaza Site source areas. In addition, soil and groundwater impacts related to the Plaza Site have been identified to extend to an approximate depth of more than 50 feet below ground surface (bgs). Additional subsurface investigation is needed within the Plaza Site source areas to delineate related impacts. Additional monitoring wells are needed to monitor remedial progress.

Since 2004, a number of soil borings and monitoring wells have been installed by Mundell in the southern portion of the Maple Creek Village Apartments and northern portion of the Michigan Plaza property to investigate leaking sewer line impacts. Soil analytical results from these investigations are provided in Table 2 and Figures 20a and 20b of the RWP. Maximum PCE soil concentrations in each of the three source areas range from more than 800 to 1300 times the IDEM 2013 Remediation Closure Guide (RCG) soil migration to groundwater (MTG) screening level. Although sampling of the three source areas was completed as recently as March 2013, these impacts remain largely not delineated vertically. Recent sampling at location MMW-14D near Source Area C identified c 1,2 DCE and VC in soil in concentrations of about 10 times and 2 times respective RCG MTG screening levels at a depth of up to 52 feet bgs. Soil data are provided in Table 2 of the RWP. The location of MMW-14D is illustrated on Figure 2a of the RWP. Elevated levels of c 1,2 DCE and/or VC in soil have also been identified at depth near Source Areas A (GP-30) and B (SB-103). Clearly further delineation of these identified impacts is warranted.

Findings of the investigations confirm that additional lateral delineation of the source areas is necessary. Duplicate soil samples collected from boring MMW-P-12 D, located near the western Michigan Plaza property boundary within Source Area B, contained PCE concentrations three orders of magnitude above the IDEM 2013 RCG MTG screening level. Further westerly delineation of Source Area B on the adjacent residential property is warranted. In addition, further delineation of Plaza Site Source A is also needed. Recent sampling in the southwest corner of the Michigan Plaza (MMW-P-02-A) identified PCE in soil at a concentration of more than 1300 times the RCG MTG screening level. Soil sampling conducted in this area by KERAMIDA Environmental, Inc. in 2000 identified a PCE concentration more than 300 times the RCG MTG screening level southwest of the Michigan Plaza Building (KERAMIDA, 2004). The location of this sample, KB-24, is indicated on Figure 20b of the RWP. A groundwater sample collected by Mundell from this general area (MMW-P-11S) in October 2011 contained a PCE concentration of more than two orders of magnitude (592 micrograms per liter) above the 2013 RCG residential screening level. Clearly further delineation of Source Area A is needed. It should be noted that MMW-P-11S is located in the vicinity of a sanitary sewer line encountered during the installation of MMW-P-11D.

Past investigations by Mundell have identified significant PCE and daughter product impacts in groundwater at the Plaza Site. Shallow monitoring wells located in the identified Plaza Site source areas contained reported concentrations of PCE up to 6,440 micrograms per liter (µg/L) (MMW-P-08), TCE up to 368 µg/L (MMW-P-01), c 1,2 DCE up to 364 µg/L (MMW-8S), and VC up to 82.1 µg/L (MMW-8S) prior to the initiation of CAP 18™ injections in August 2007. Maximum dissolved impacts were identified in Source Area B. Only two deep monitoring wells (MMW-P-03D, MMW-P-10D) were installed at the Plaza Site prior to the implementation of bioremediation. These monitoring wells are located within Source Areas A and B, respectively. Prior to the injections, PCE was reported at a maximum concentration of 48.9 µg/L (MMW-P-3D), TCE at up to 10.6 µg/L (MMW-P-10D), c 1,2 DCE up to 498 µg/L (MMW-P-10D) and VC up to 118 µg/L (MMW-P-10D). Monitoring well analytical results are presented in Table 3 of the RWP. These pre-injection findings provide salient information regarding the impact of the Plaza Site sources on groundwater. Significant c 1,2 DCE and VC impacts were identified in the shallow zone and it is clear their occurrence is related to the Plaza Site. Similar concentrations of these daughter products were identified in the deeper zone within the source areas. The deep wells contained detectable PCE or TCE concentrations. The data clearly indicate that significant levels of daughter products attributable to the Plaza Site were present in the shallow and deep groundwater in the source areas prior to the initiation of bioremediation at the site. An absence of PCE detections in MMW-P-10D confirms that not all Plaza Site impacted groundwater contains this constituent. MW-168D, located just downgradient of the Source Area A, also contained detectable c 1,2 DCE and VC concentrations in the absence of PCE prior to the initiation of bioremediation.

Data collected from MMW-P-03D and MMW-P-10D following the implementation of bioremediation using CAP 18™ and CAP 18 ME™ indicated increases in daughter products C 1,2 DCE and VC by one to two orders of magnitude since remediation started in August 2007. C 1,2 DCE and VC have also increased by orders of magnitude in shallow wells located in Source Areas A, B, and C since remediation began at the Plaza Site. A comparison of dissolved c 1,2 DCE and VC trends in deep wells on the Maple Creek Village Apartments property (RWP Figure 29) shows an apparent increasing trend in MMW-14D contrasted with decreasing trends in those (e.g., MMW-4D, MMW-5D) located in the northwest portion of the property. These findings further substantiate and confirm that impacts from the Plaza Site including daughter products c 1,2 DCE and VC extend throughout the entire thickness of the saturated sand/sand and gravel unit (shallow and deep zones) down to depths of at least 52 ft amsl (MMW-14D) and that the Michigan Plaza site is the primary source of the daughter products in groundwater in and downgradient of the Maple Creek Village Apartments property and Plaza Site. It is also clear that MMW-14D is not representative of impacts from the Genuine Parts Site and should not be used by Mundell for background determination as suggested in Section 2.6 of the RWP.

Remediation conducted at the Plaza Site has caused a significant increase of VC in groundwater within and downgradient of the Mundell treatment areas. The most recent VC concentration in groundwater at well MW-169D located downgradient of the Plaza Site was about double that of past sampling events (Table 3). Detectable concentrations of VC are now present in MW-171D since the injections. As it is clear that impacts in these wells are related to the Plaza Site, it is not appropriate for Mundell to use them for "…monitoring the wider surrounding aquifer conditions emanating from Genuine." as suggested in Section 3.6.1 of the RWP. In addition, it is apparent that remediation at the Plaza Site has impacted monitoring well MW-170D located to the southwest near the West Vermont Residential Area. VC levels in this well more than doubled following the initiation of the injections at the Plaza Site (Table 3). This well and other wells should be closely monitored by Mundell during and following remediation activities at the Plaza Site.

Mundell's representation in Section 2.4.6.2 of pre-remediation groundwater conditions in 2005 is flawed. Figures presented to represent these conditions, including but not limited to 31i and 31k, are based on a limited set of data collected prior to the majority of investigation of the Plaza Site sources. In addition, no data points are included on the figures. As discussed above, the Plaza Site sources have had a significant impact on the groundwater conditions prior to and following Mundell's CAP 18™ and CAP 18 ME™ injections. These figures simply are not representative of the groundwater conditions in 2005. Despite Mundell's statement here that "no PCE has ever been detected in the deep zone throughout the Site" this contaminant was detected in deep well MMW-P-3D a number of times (Table 3). It should also be noted that PCE has been detected in deep monitoring well MW-WES-1C located southwest of the Plaza Site near the West Vermont Residential Area (Table 3).

Due to an absence of an adequate deep monitoring well network, the status of remedial progress and related amount of VC generation at the Plaza Site is not clear at depth. VC levels have increased significantly in deep monitoring wells present near source areas at the Site (MMW-P-03D and MMW-P-10D). The shallow monitoring well network also indicates that a significant amount of VC has been generated during the Plaza Site remediation. Further the data indicate that the Plaza Site VC plume is expanding. Several monitoring wells in each source area that once did not contain a detectable VC concentration have since contained up to 6,500 times the Federal drinking water Maximum Contaminant Level of 2 ug/L. Since the sources have not been fully characterized, it is not clear whether remedial efforts have been adequately targeting the source areas or what level of effort will be required to reduce the residual dry cleaning solvent contaminant concentrations to acceptable levels. Clearly the data indicate that additional monitoring wells should be installed by Mundell to monitor remedial progress and delineate the extent of related impacts, particularly west-southwest of Source Areas A and B.

Past investigations by Mundell have identified PCE and daughter products related to the Plaza Site source areas in soil gas and indoor air at the Maple Creek Village Apartments and Plaza. Indoor air and soil gas analytical results are provided in Tables 4B and 4C and Figures 21 and 22 of the RWP. PCE is the primary constituent detected in the vapor samples and almost exclusively the only contaminant detected in a concentration above its respective indoor air action level. The findings confirm the Plaza Site is the source of the identified soil gas and indoor air impacts and not the Genuine Parts Site as suggested by Mundell in the Executive Summary and Section 1.1 of the RWP.

3. Distribution of c 1,2 DCE and VC in Groundwater.

Mundell prepared a series of interpretive dissolved VOC constituent plume maps and cross sections for the shallow and deep portions of the surficial sand & gravel unit. Figures 31f and 31j of the Mundell RWP are interpretative shallow and deep c 1,2 DCE plume maps and Figure 31l is an interpretive deep VC plume map. Cross sections of interpreted c 1,2 DCE and VC occurrence in groundwater include figures 31o, 31p, 31s, 31t, 31w and 31x. The plume maps and cross sections are inconsistent with available data. The interpreted plumes are also inconsistent with and substantially different from past Mundell plume maps. As discussed below, it is apparent that critical data points have not been considered in preparing the maps, resulting in interpreted plumes inconsistent with groundwater chemistry data. It is also apparent that the maps are inconsistent with Mundell's stated groundwater flow direction and potentiomentric surface maps (e.g., Figures 14 and 15). Improbable conclusions are made by Mundell within the RWP regarding the occurrence and transport of impacts from the Genuine Parts Site based on the flawed plume maps and cross sections. Concerns identified with the c 1,2 DCE and VC plume maps and cross sections are detailed below.

Figure 31f-c 1,2 DCE in Shallow Groundwater.

The interpreted shallow c 1,2 DCE plume in Figure 31f is not consistent with Mundell's stated groundwater flow direction and the shallow potentiometric surface map Figure 14. In Section 2.1.1.5 of the RWP Mundell states that groundwater flow is consistently to the south-southeast. However, the plume illustrated on Figure 31f in the northern portion of the Maple Creek Village Apartments property is oriented to the southwest. The southwest oriented plume is also inconsistent with other Mundell shallow c 1,2 DCE plume maps (e.g., Fig 31e).

Figure 31j-c 1,2 DCE in Deep Groundwater

The interpreted c 1,2 DCE plume for deep groundwater is not consistent with monitoring well data. An area of maximum c 1,2 DCE concentrations (>500 µg/L) is shown in the northeast portion of the Maple Creek Village Apartments property generally without data to confirm its existence. As previously discussed, impacts at MMW-14D are related to the Plaza Site. The plume is generally shown to be oriented to the southwest which is inconsistent with Mundell's stated south-southeast groundwater flow direction and deep groundwater potentiometric surface map Figure 15. The broad area of c 1,2 DCE impacts greater than 500 µg/L in the northeastern portion of the apartments property and southwest orientation of the plume illustrated on Figure 31j are inconsistent with other Mundell c 1,2 DCE plume maps including 31i of the RWP.

Figures 31o,s,w-C 1,2 DCE in Groundwater Cross Sections

There are a number of errors and improbable illustrations on the c 1,2 DCE in groundwater cross sections (Figures 31o, 31s, and 31w). Figure 31o (Geologic Cross Section A-A') incorrectly shows a broad area of c 1,2 DCE impacts greater than 1000 µg/L. The actual maximum c 1,2 DCE concentration at any of the wells illustrated on the figure is 196 µg/L (MMW-13D). Figure 31s (Geologic Cross Section B-B') incorrectly shows a broad area of c 1,2 DCE impacts greater than 1000 µg/L in the northern portion of the Maple Creek Village Apartments property. The actual maximum c 1,2 DCE concentration in any of the monitoring wells in this area is 633 µg/L (MW-166D). The plume illustrated in this area also incorrectly shows shallow c 1,2 DCE impacts at location MW-165S at a concentration of greater than 100 µg/L. MW-165S, which is co-located with MW-165D, is not shown on the cross section and has not contained a detectable c 1,2 DCE concentration since 2009 (ENVIRON, September 2013). Figure 31s contains an improbable illustration of two superimposed plumes in Source Area B (MMW-8S). As previously stated, c 1,2 DCE impacts in this area are primarily related to the Plaza Site sources. In addition, there are no data to support the vertical delineation of c 1,2 DCE impacts at MMW-P-6 on the Plaza Site property. As indicated previously, c 1,2 DCE impacts from Plaza Site extend throughout the upper sand and gravel unit. As with Figure 31s, Cross Section C-C' (Figure 31w) contains an improbable representation of two distinct plumes near Source Area B (MMW-11S/D, MMW-8S, MMW-10S/D and Source Area A (MMW-P-01, MMW-P-11S/DR). As discussed above, Plaza Site impacts extend throughout the sand and gravel unit.

Figure 31l-VC in Deep Groundwater

As the case for the interpreted deep c 1,2 DCE plume, Figure 31l is not consistent with monitoring well data. An overly broad VC plume is shown that includes areas where the data provided on the map are non-detect (MMW-11D). An area of >100 µg/L VC is shown to extend from the northern portion of the Maple Creek Village Apartments property across Michigan Street to the southwest. There are no data provided on the figure for the vast majority of this interpreted area of > 100 µg/L VC. The interpreted plume contradicts available data not provided on the figure. The omission and apparent lack of consideration of available data has resulted in an unreliable presentation of VC occurrence in the deep zone. ENVIRON grab groundwater sample EB-1 (30-35) collected from within the interpreted >100 µg/L area just north of Michigan Street contained a VC concentration of

just 21.4 µg/L (ENVIRON, 2011. The location of EB-1 is illustrated on Figure 2a of the Mundell RWP. The interpreted area of >100 µg/L in the western portion of the plume is shown to be oriented to the southwest which is inconsistent with Mundell's stated south-southeast groundwater flow direction and deep groundwater potentiometric surface map Figure 15. The illustrated broad VC plume, interpreted area of > 100 µg/L in the western portion of the plume, and southwest orientation of the area >100 µg/L are inconsistent with other Mundell VC in deep groundwater plume maps including 31k of the RWP. In addition, the interpreted southwest trending area of >100 µg/L VC is in the same location of a till high on Figure 9 that Mundell shows groundwater flowing around. The presence of the speculated till high remains unconfirmed.

Figures 31p,t,x-VC in Groundwater Cross Sections

As the case for c 1,2 DCE, there are a number of errors and improbable illustrations on the VC in groundwater cross sections (Figures 31p, 31t, and 31x). Like the deep VC plume map (Figure 31l), Figure 31p (Geologic Cross Section A-A') incorrectly shows an area of VC impacts greater than 100 µg/L without any data to substantiate its presence. The erroneous area is depicted on Figure 31p between MW-174S/D and MMW-13D. In addition, there are no data to support the vertical delineation of VC impacts at MMW-10S which is located in Source Area C. As indicated previously, VC impacts from Plaza Site extend throughout the upper sand and gravel unit and down to a depth of at least 50 feet bgs. Geologic Cross Section B-B' (Figure 31t) and Geologic Cross Section C-C' (Figure 31x) also illustrate locations within or near Plaza Site source areas where VC impacts are interpreted to be vertically delineated without data to confirm delineation. These include MMW-P-07, MMW-P-08, and MMW-C-16S/D for Figure 31t and MMW-8S, MMW-P-08, MMW-P-10S/D, MMW-P-11S/D, MMW-P-13S/D, and MW-170S/D for Figure 31x. In addition, like Figure 31p, Figure 31x incorrectly illustrates an area of VC impacts >100 µg/L without any data to substantiate its presence. The erroneous area is depicted on Cross Section C-C' between MMW-P-13S/D and MW-170S/D.

4. Summary

ENVIRON has completed a review of the Mundell September 2013 RWP for the Plaza Site. Our review of the RWP identified a number of gaps regarding IDEM's 2011 data requests and significant internal inconsistencies with the stated utility and accuracy of the data presented, as well as, inconsistencies and concerns with resultant interpretations of subsurface conditions and related chemical fate & transport conclusions. Based on identified data gaps, it is apparent that the RWP does not adequately address the IDEM concerns identified in the June 2011 letter and should not be approved at this time. Salient findings of our review are summarized below.

1. The former Accent Cleaners previously located at Michigan Plaza is the primary source of PCE and daughter product (e.g., TCE, DCE, VC) impacts at the Maple Creek Village Apartments, Michigan Plaza, and other neighboring properties surrounding Michigan Plaza. Impacted media include soil, groundwater, and soil vapor/indoor air. Identified Plaza Site source areas have not been adequately delineated. Identified soil and groundwater impacts extend throughout the upper sand and gravel unit (generally present above an elevation of 675 feet amsl and down to an elevation of 662 ft amsl (MMW-14D). There is no identifiable thick continuous till present beneath the lower portion of the Maple Creek Village Apartments and Michigan Plaza properties that materially inhibits vertical contaminant migration.
2. Soil and groundwater impacts identified at MMW-14D are related to the Plaza Site and are not representative of background conditions. This monitoring well should not be used by Mundell for a background monitoring well. Further investigation by Mundell is warranted in the location of other identified background wells (e.g., MW-166S/D, MMW-13D) to determine whether

impacts related to sewer releases are present in these areas or if they are representative of background conditions.

3. Monitoring wells MMW-169S/D and MW-171S/D are clearly downgradient of Plaza Site source areas and are representative of related impacts. These wells are not appropriate for Mundell to evaluate potential impacts from the Genuine Parts Site.
4. Mundell's representation of groundwater flow is internally inconsistent. Interpretations of subsurface conditions and related chemical fate & transport conclusions are unsubstantiated and also internally inconsistent. A clearer understanding of the nature and extent of Plaza Site impacts, groundwater flow, and the potential for impact of the selected remedy on the West Vermont Street Residential Area is needed prior to RWP approval. Salient activities that should be conducted by Mundell include the following:
   - Till topographic features and thickness inferred to be present should be field verified.
   - The Plaza Site source areas should be further delineated, particularly to west.
   - Additional deep monitoring wells should be installed in the Plaza Site source areas
   - Further investigation of Mundell identified background areas should be conducted to determine if Plaza Site impacts are present (e.g., MW-166 S/D).

Should you have any questions regarding this correspondence, please contact me at your convenience.

Very truly yours,

ENVIRON International Corporation

Andrew A. Gremos, LPG, CHMM
Principal

REFERENCES

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